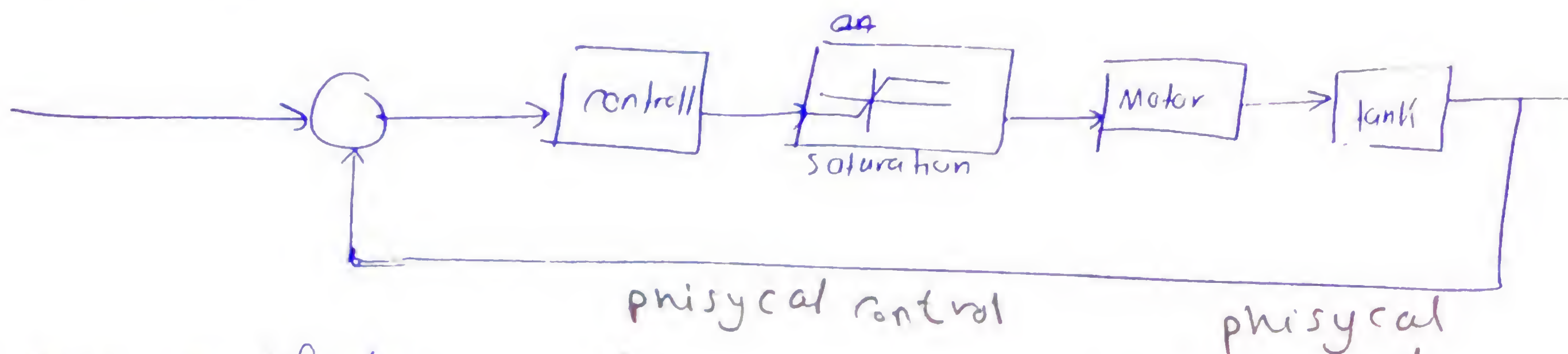
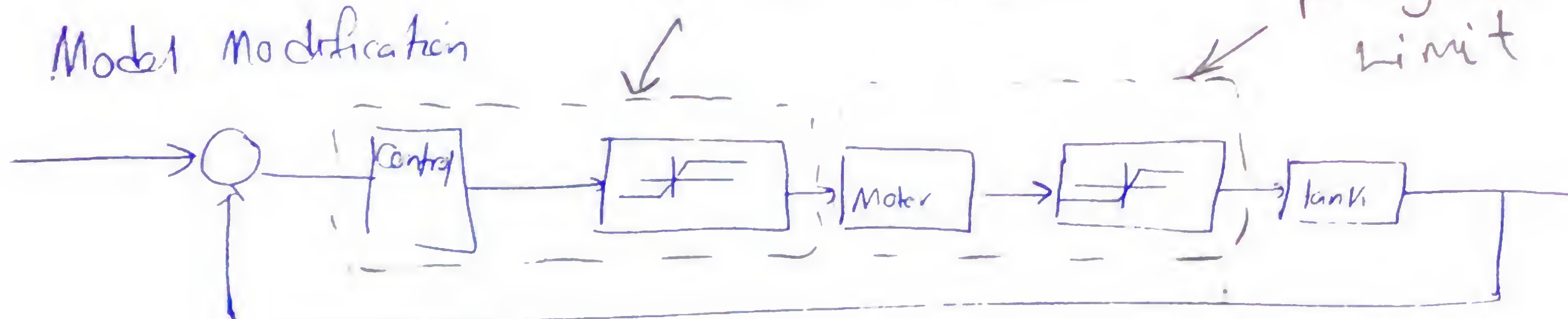


The 1st source of Nonlinearity is Saturation.

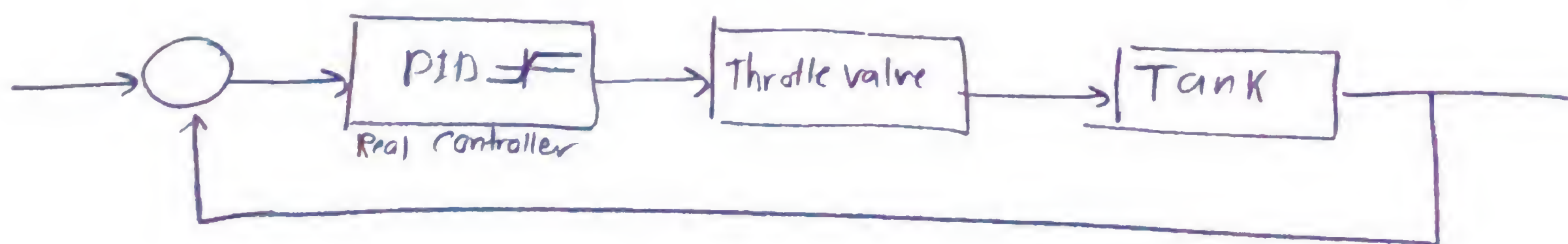
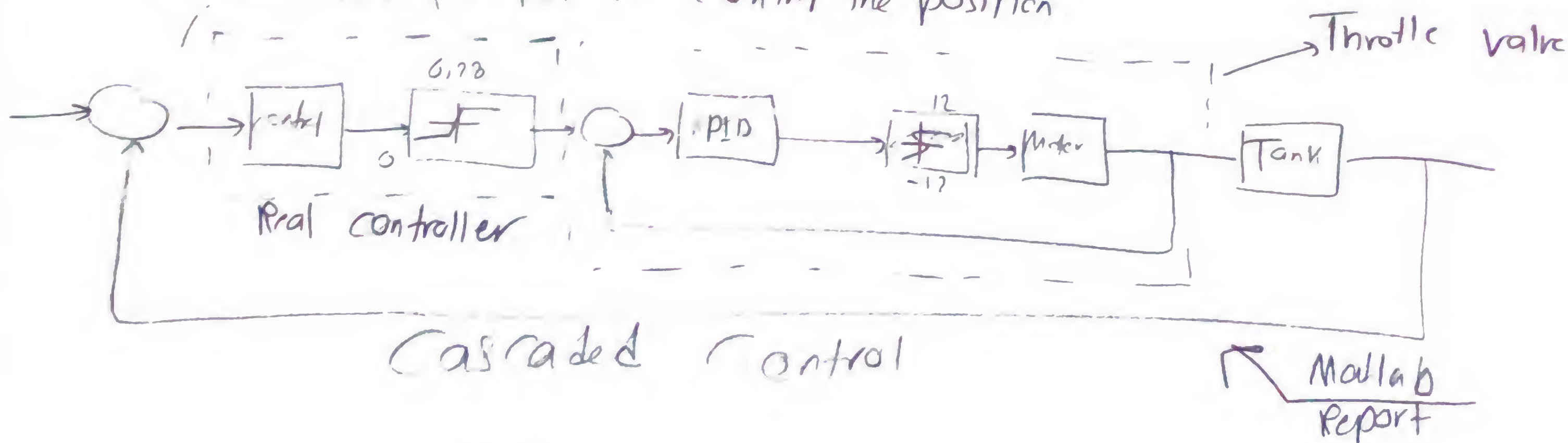
Model Modification



Model Modification



Model Modification to control the position



Derivative Kick

noise: $a_n \sin(\omega_n t)$
 $a_n \downarrow$
 $\omega_n \uparrow$

$\frac{d}{dt}$: $\frac{a_n \omega_n}{\text{very high}} \cos \omega_n t \rightarrow \text{low pass filter}$



اگر ہو تو تغاثر ال output و آفد feedback
 output نو ال

Integral windup

